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IS 15612-3 (2005): Textiles - Burning behaviour of curtains and drapes, Part 3: Method for determining the ignitability of vertically oriented specimens (small flame) [TXD 32: Textiles Protective Clothing]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

वस्त्रादि — पर्दों और ड्रैपों का ज्वलन व्यवहार

भाग 3 टंगे नमूनों की ज्वलनशीलता ज्ञात करने की पद्धति (छोटी ज्वाला)

Indian Standard

TEXTILES — BURNING BEHAVIOUR OF
CURTAINS AND DRAPES

PART 3 METHOD FOR DETERMINING THE IGNITABILITY OF
VERTICALLY ORIENTED SPECIMENS (SMALL FLAME)

ICS 13.220.40;59.080.30

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

FOREWORD

This Indian Standard (Part 3) was adopted by the Bureau of Indian Standards, after the draft finalized by the Chemical Methods of Test Sectional Committee had been approved by the Textile Division Council.

The flammability is one of the important properties of textile materials apart from other characteristics such as combustion, thermal degradation, smouldering, after glow, smoke and toxicity. With the increasing awareness of fire hazards and promulgation of fire safety rules and regulations in several advanced countries, development of standards on burning behaviour of textiles needs no emphasis.

In order to keep pace with the technological advances in the testing of burning behaviour of textile fabrics intended for curtains and drapes, and similar uses such as drapes and hangings, formulation of standards based on latest practices at International level is essential.

This standard is based on EN 1101 : 1995 'Burning behaviour of curtain and drapes — Detailed method of determining the ignitability of vertically oriented specimens (small flame)'. The ignitability is determined in accordance with IS 15589 with some modification which are specified in this standard.

The other parts in this series are:

- Part 1 Classification scheme
- Part 2 Measurement of flame spread of vertically oriented specimens with large ignition source
- Part 4 Method for determining the flame spread of vertically oriented specimens

The composition of the Committee responsible for formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounding off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Indian Standard***TEXTILES — BURNING BEHAVIOUR OF
CURTAINS AND DRAPES****PART 3 METHOD FOR DETERMINING THE IGNITABILITY OF
VERTICALLY ORIENTED SPECIMENS (SMALL FLAME)****1 SCOPE**

This standard (Part 3) specifies a procedure to determine the ignitability of textiles for curtains and drapes by testing in accordance with IS 15589.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
15370 : 2005/ ISO 6330 : 2000	Textiles — Domestic washing and drying procedures for textile testing
15589 : 2005/ ISO 6940 : 1984	Textile fabrics — Burning behaviour — Determination of ease of ignition of vertically oriented specimens
15612 (Part 2) : 2005	Textiles — Burning behaviour of curtains and drapes: Part 2 Measurement of flame spread of vertically oriented specimens with large ignition source

3 SAMPLING

Samples shall be representative of the materials as used in complete curtains and drapes, in accordance with the number and size of the specimens specified in IS 15589.

4 CLEANSING

4.1 The sample shall be submitted to the cleansing procedure given on the care label. If no cleansing procedure is prescribed, the material shall be submitted in one cycle of one of the following standard cleansing procedures as appropriate to the fabric:

- Washing in accordance with method 6A (40 ± 3) C and drying in accordance with method C specified in IS 15370; and
- Dry cleaning in accordance with Annex C of IS 15612 (Part 2).

4.2 If the fabric is not intended to be cleansed, testing shall be carried out on samples and specimens as received.

NOTE — This cleansing procedure is not intended as a durability test for flame retardant treatment but only to remove non-durable finishes or contamination and to obtain fabric surfaces and structure characteristics which are representative of those typically obtained in fabrics in actual use.

5 TEST SPECIMENS

5.1 Test specimens shall be cut from the sample as described in 3.

5.2 The specimens shall consist of one or more layers of material, according to the construction of the curtain.

5.3 Unless otherwise specified, specimens shall not contain features such as seams, pleats, etc. Nevertheless, specimens shall contain pattern or design features when they are a specific part of the fabric, such as Jacquard construction.

6 CONDITIONING

Condition the specimens and the filter paper for at least 24 h in a standard atmosphere of 27 ± 2°C and 65 ± 2 percent relative humidity.

7 TEST PROCEDURE

Ignitability shall be tested according to IS 15589 using commercial propane gas.

8 TEST REPORT

The test report shall include the following information:

- Reference to this Indian Standard;
- Identification of the fabrics tested;
- Cleansing procedure if used or, a statement that the material is not intended to be cleansed;
- Date of testing;
- Ambient conditions (temperature and relative humidity) in the area in which the test is carried out;
- Size of specimens used;
- Whether or not the fabrics ignite within 20 s;

- h) Tabulation for each direction in the case of edge ignition, or each surface and direction. In the case of surface ignition of the number of cases of ignition and non-ignition observed at each timer setting used during the test;
- j) Mean ignition time for each direction or, in the case of surface ignition, for each direction and surface of the fabric tested;
- k) Minimum ignition time of the textile material which is the lowest mean ignition time reported under item j) above; and
- m) Any deviation from this procedure.

ANNEX A (Foreword)

COMMITTEE COMPOSITION

Chemical Methods of Test Sectional Committee, TX 05

<i>Organization</i>	<i>Representative(s)</i>
Textiles Committee, Mumbai	DR G. S. NADIGAR (<i>Chairman</i>) SHRI E. VISHAMBHARAM (<i>Alternate</i>)
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Member Secretary
SHRI ANIL KUMAR
Joint Director (TXD), BIS

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